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CLAIMS

1. A method of generating a filter graph for a user-defined processing project, the method comprising:

analyzing the project for multiple accesses to a single source of media content;

determining that the multiple accesses cannot be combined and/or share a common processing chain; and

coupling a single instance of the media source to the one or more processing chains through a software object to satisfy the multiple accesses without invoking a commensurate number of multiple instances of the media source.

2. A method according to claim 1, further comprising:

receiving a request for content at the software object; and

issuing a seek command from the software object to the media source to retrieve the media for presentation to a requesting processing chain.

3. A method according to claim 1, wherein the method is implemented by a render engine, exposed from an operating system to a media processing system executing on a computing system.

4. A method according to claim 3, wherein the software object is a segment filter.

5. A method according to claim 1, further comprising:

identifying multiple simultaneous access to the media source; and

invoking a commensurate number of software objects, coupling a commensurate number of instances of the media source to processing chains to satisfy the multiple simultaneous requests.

6. A storage medium comprising a plurality of executable instructions including at least a subset of which that, when executed, implement a method according to claim 1.

7. A computing system comprising:

a storage medium having stored thereon a plurality of executable instructions; and

an execution unit, coupled to the storage medium, to execute at least a subset of the plurality of executable instructions to implement a method according to claim 1.

8. A method of generating a filter graph for a user-defined processing project, the method comprising:

analyzing the project for multiple accesses to a single source of media content;

determining that the multiple accesses cannot be combined and/or share a common processing chain; and

coupling a single instance of the media source to the one or more processing chains through a software object to satisfy the multiple accesses

without invoking a commensurate number of multiple instances of the media source, wherein the one or more processing chains comprise:

a scalable, dynamically reconfigurable matrix switch having a plurality of inputs and a plurality of outputs;

at least one matrix switch input being communicatively linked with a first processing chain portion;

at least one other matrix switch input being communicatively linked with a second processing chain portion;

the matrix switch being configured to dynamically couple one or more of the matrix switch inputs to one or more of the matrix switch outputs.

9. A method according to claim 8, further comprising:

receiving a request for content at the software object; and

issuing a seek command from the software object to the media source to retrieve the media for presentation to a requesting processing chain.

10. A method according to claim 8, wherein the method is implemented by a render engine, exposed from an operating system to a media processing system executing on a computing system.

11. A method according to claim 10, wherein the software object is a segment filter.

12. A method according to claim 8, further comprising:

identifying multiple simultaneous access to the media source; and

invoking a commensurate number of software objects, coupling a commensurate number of instances of the media source to processing chains to satisfy the multiple simultaneous requests.

13. A storage medium comprising a plurality of executable instructions including at least a subset of which that, when executed, implement a method according to claim 8.

14. A computing system comprising:

a storage medium having stored thereon a plurality of executable instructions; and

an execution unit, coupled to the storage medium, to execute at least a subset of the plurality of executable instructions to implement a method according to claim 8.

15. A method of generating a filter graph for a user-defined processing project, the method comprising:

analyzing the project for multiple accesses to a single source of media content;

determining that the multiple accesses cannot be combined and/or share a common processing chain;

coupling a single instance of the media source to the multiple processing chains through a software object to satisfy the multiple accesses without invoking a commensurate number of multiple instances of the media source; and

ascertaining whether the multiple processing chains share common pre-processing attributes and, if so, interposing one or more associated filters between the single source of media content and the software object.

16. A method according to claim 15, further comprising:

receiving a request for content at the software object; and

issuing a seek command from the software object to the media source to retrieve the media for presentation to a requesting processing chain.

17. A method according to claim 15, wherein the method is implemented by a render engine, exposed from an operating system to a media processing system executing on a computing system.

18. A method according to claim 17, wherein the software object is a segment filter.

19. A method according to claim 15, further comprising:

identifying multiple simultaneous access to the media source; and

invoking a commensurate number of software objects, coupling a commensurate number of instances of the media source to processing chains to satisfy the multiple simultaneous requests.

20. A storage medium comprising a plurality of executable instructions including at least a subset of which that, when executed, implement a method according to claim 15.